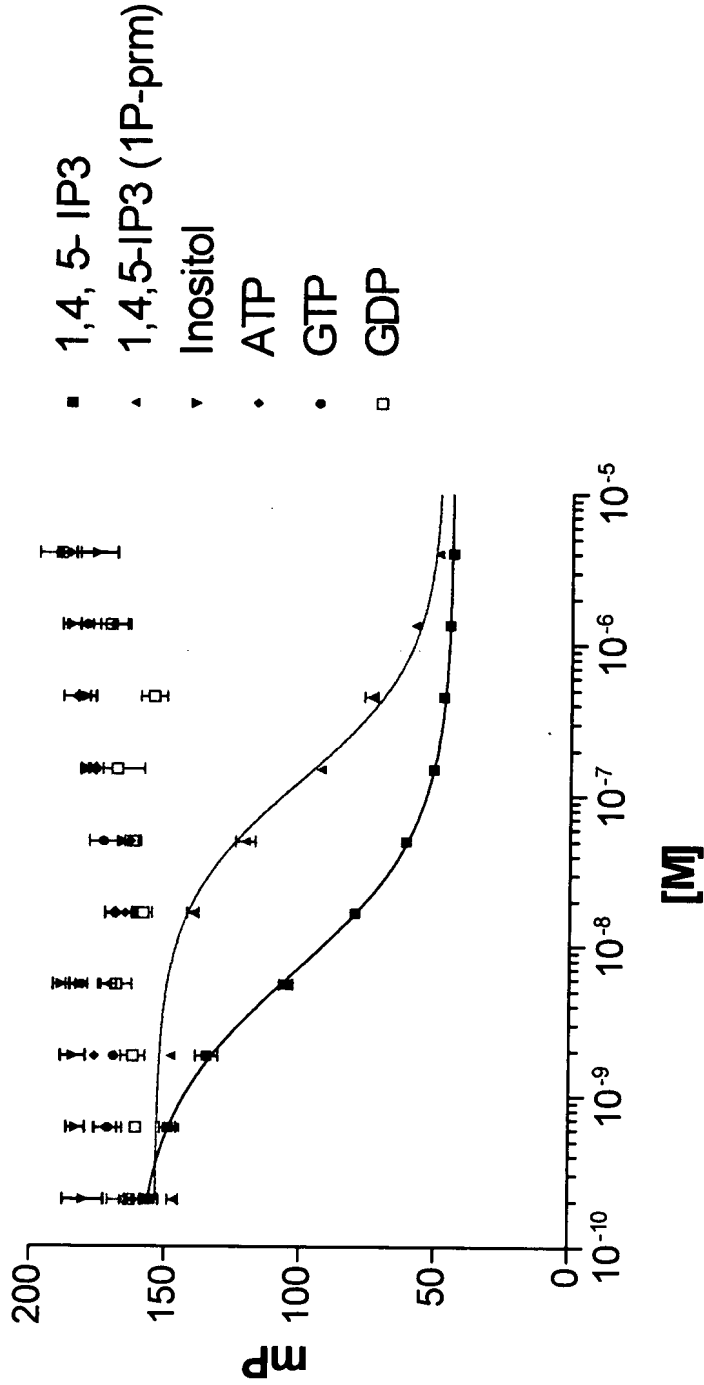


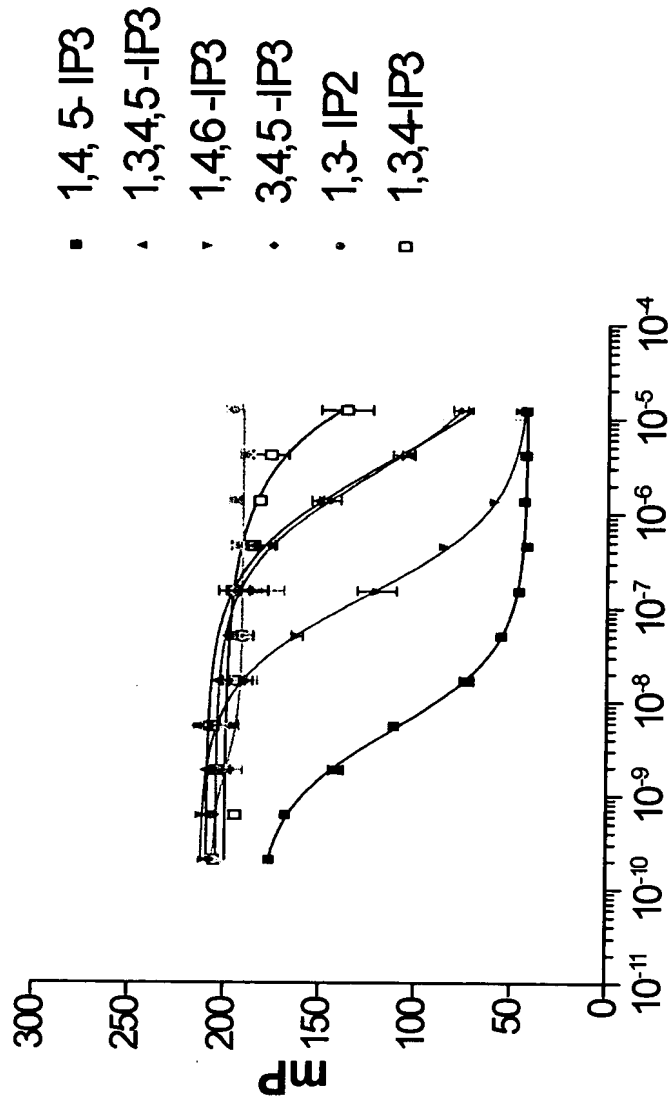
IP3 binding protein reactivity to different IP3 derivatives and other phosphate derivatives

2- position IP3 derivative is more potent than 1-position IP3



| | 1,4, 5- IP3 | 1,4,5-IP3 (1P-prm) |
|-----------|-------------|--------------------|
| HILLSLOPE | -0.9022 | -1.049 |
| EC50 | 6.5740e-009 | 1.2410e-007 |

2 position IP3 derivative shows higher binding affinity than other IP3 derivatives



IP3[M]

| | 1,4, 5- IP3 | 1,3,4,5 -IP3 | 1,4,6 -IP3 | 3,4,5 -IP3 | 1,3- IP2 | 1,3,4-IP3 |
|-----------|--------------|--------------|-------------|-------------|-------------|-----------|
| HILLSLOPE | -0.9961 | -0.8314 | -0.9278 | -0.9015 | -1.407 | -0.6185 |
| EC50 | 4.9560e-0093 | 1.950e-0061 | 3.170e-0072 | 3.320e-0061 | 9.820e-0090 | 0.002105 |

Summary

- The binding protein used in this assay has 1000 times greater binding activity to IP3 than endogenous IP3R in mouse cerebellar microsomes (Refs: MikoshibaK BBRC 1999a & JBC, 2002)
- Studies using Discoverx Fluorescence polarization (FP) showed high binding affinity and selectivity of 2 position IP3 derivative when compared to other IP3 derivatives or ATP/ GTP derivatives